## **U.S. Office of Personnel Management Washington Service Center**

#### VACANCY ANNOUNCEMENT

Amended as of January 2000

Vacancy announcement number: WA-2-1529

Opening Date: 2/15/1999 Closing Date: Indefinite

**Position**: Mathematical Statistician, GS-1529-7/9/11/12

Permanent Positions and a limited number of Term Positions

**Number of Positions:** Many

**Job Location:** Department of Commerce

Bureau of the Census

Suitland, MD

**Salary:** GS-5: \$27,066 - \$33,474

GS-7: \$30,880 - \$38,818 GS-9: \$37,775 - \$47,486 GS-11: \$43,096 - \$54,850 GS-12: \$51,204 - \$66,564

Within certain constraints, the agency may be able to match written offers or salaries of currently employed applicants.

Payment of relocation expenses MAY BE authorized.

**Promotion Potential:** GS-12

Announcement is open to the public.

#### **Major Job Duties:**

Mathematical Statisticians insure that Bureau of the Census statistical products meet the high professional standards by applying mathematical statistical theory, techniques, and methods to statistical studies and surveys. They analyze the accuracy and validity of statistical data, determine whether processes and operations are appropriate, recommend improvements to the collection and analysis of statistical data, and prepare and disseminate technical documentation of their work.

#### Follow these steps to apply:

- 1. Determine whether you meet the qualification requirements for the grade level in which you are interested
- 2. Prepare your application materials.
  - A. Questionnaire (electronic http://www.usajobs.opm.gov/cen1529.htm or hard copy).
  - B. Resume
  - C. Transcript
  - D. Other material
- 3. Submit your application materials (FAX to 1-800-601-8952)

## FAILURE TO PROVIDE COMPLETE INFORMATION MAY RESULT IN YOUR NOT RECEIVING CONSIDERATION FOR THIS POSITION.

#### **QUALIFICATION REQUIREMENTS:**

1. You must be a United States citizen to apply.

- 2. To be eligible for Federal employment, male applicants born after December 31, 1959, must certify at the time of appointment that they have registered with the Selective Service System, or are exempt from having to do so under Selective Service law.
- 3. You must meet the basic requirements for a mathematical statistician. For a specific grade level, you must meet those requirements.
- 4. If you qualify based on a combination of education and experience use the following guidelines: to combine your education and experience, you must convert each to a percentage and then add the percentages. The combined total of your percentages of education and experience must equal at least 100% to qualify. Experience: to determine your percentage of qualifying experience, you must divide your total number of months of qualifying experience by 12 - the required number of months experience. Education: if your education is currently described in quarter hours, convert the quarter hours into semester hours by multiplying the quarter hours by the fraction 2/3. To compute your percentage of education, take the number of graduate-level semester hours you completed beyond the minimum amount listed for the grade level and divide it by the number of semester hours required by your school for one academic year of full-time graduate study or by 18 if you cannot determine the number of semester hours required by your school.

#### Basic Requirements for a Mathematical Statistician and GS-5 Qualifications:

1) You have (or within 9 months will have) 24 semester hours of math and statistics at least 12 of which were math and 6 were statistics.

#### AND.

2) Your course work included at least 4 of the following (or within 9 months will have included):

-differential calculus -theory of equations

-advanced calculus
-linear algebra
-math logic
-vector analysis
-integral calculus
-advanced algebra
-differential equations,
-probability theory

-mathematical statistics -any other math course for which one of the above is a prerequisite

If you are using course work in mathematical statistics or probability theory to meet the mathematics requirement, these courses will not be counted again to meet the statistics requirement.

#### AND,

3) You have (or within 9 months will have) a college degree,

#### OR,

You do not have a degree but do have the education specified in 1) and 2), and also have additional education, or experience performing duties such as sampling, collecting, computing and analyzing statistical data; applying known statistical techniques such as measurement of central tendency, dispersion, skewness, sampling error, and simple and multiple correlation; conducting analysis of variance; and conducting tests of significance. Your combination of education and experience must total at least four years.

#### **GS-7 Qualifications:**

You have superior academic achievement defined as one (or more) of the following:

- membership in a national honor society,
- graduating in the upper 1/3 of the class,
- earning an undergraduate grade point average of at least 2.95 (on a 4.0 scale) in the final 2 undergraduate years completed,
- earning a cumulative undergraduate GPA of at least 2.95,
- earning an undergraduate GPA of at least 3.45 in the major during the final 2 undergraduate years completed,
- earning a cumulative undergraduate GPA of 3.45 in the major.

#### OR,

You have (or within 9 months will have) completed 1 year of graduate education.

#### OR,

You have been in a Mathematical Statistician, GS-1529-5, position for at least one year.

OR,

You have had at least one year of professional work experience where your assignments and the steps to follow usually were defined by your supervisor or by standard operating procedures, and your work was checked closely for accuracy and adequacy. Generally, any deviation from standard procedures required prior approval of your supervisor. Your assignments included performing one or more statistical or analytical tasks: 1) applying or using standard statistical methods and analyses found in college textbooks; 2) using statistical analysis software to help a senior colleague or supervisor analyze data; 3) helping plan surveys; or 4) assisting in developing a portion of a report on statistical analysis.

OR,

You have a combination of graduate education (less than 1 year) and work experience described for a GS-7 (less than 1 year).

#### **GS-9 Qualifications:**

You have (or within 9 months will have) a master's degree, or completed two years of progressively higher level graduate education leading to a master's degree, in Mathematics, Statistics, Biostatistics, Economics, Sociology, Demography, or Computer Science.

OR

You have been in a Mathematical Statistician, GS-1529-7, position for at least 1 year.

OR

You have had at least one year of professional work experience where your assignments were most often defined by your supervisor or by standard operating procedures, but you used some judgement in selecting the statistical methods and, when necessary, made minor changes to adapt the methods to your specific work situations. Your analytical methods and results, written documents, and reports were closely reviewed for technical and analytical adequacy. Your assignments included one or both of the following: 1) doing statistical analyses on, or applying statistical analytical methodology to, socio/economic or demographic data or socio/economic or demographic administrative records or record systems; or 2) assisting in the development of statistical technical reports or professional papers on such data.

OR

You have a combination of graduate education (more than 1 academic year but less than 2) and work experience described for a GS-9 (less than 1 year).

#### **GS-11 Qualifications:**

You have (or within 9 months will have) a Ph.D., or three years of progressively higher level graduate education leading to a Ph.D., in Mathematics, Statistics, Biostatistics, Economics, Sociology, Demography, or Computer Science.

OR.

You have been in a Mathematical Statistician, GS-1529-9, position for at least one year.

OR

You have had at least one year of professional work experience where your assignments required that you select and adapt standard statistical techniques from text books, handbooks, or other professional literature for a variety of problems when related precedents were available. Your analytical approaches and results were very generally reviewed for technical and professional adequacy. Your assignments involved applying statistical methods to carry out statistical analyses, or assisting in the development of technical reports or professional papers dealing with socio/economic or demographic data or socio/economic or demographic administrative records or record systems. Your assignments included strong emphasis on statistical methodological areas such as developing sample design and allocation studies, and establishing survey specifications and methodology, as well as documenting your analyses and conclusions in written and oral reports.

OR,

You have a combination of graduate education (more than 2 academic years but less than 3) and work experience described for a GS-11 (less than 1 year).

#### **GS-12 Research Qualifications:**

You have (or within 9 months will have) a Ph.D., or three years of progressively higher level graduate education leading to a Ph.D., in Mathematics, Statistics, Biostatistics, Economics, Sociology, Demography, or Computer Science.

OR,

You have been in a Mathematical Statistician, GS-1529-11, position for at least one year.

OR

You have at least 1 year of work experience performing duties such as solving difficult statistical problems with little

precedent; adapting statistical methods from textbooks or professional journals; establishing methodology from previous studies on related areas; designing sampling and estimation procedures for surveys; selecting and adapting statistical techniques for a variety of problems; documenting work results and findings in oral reports and specifications, technical reports, or professional papers; giving formal presentations at work or at professional meetings, and using statistical analysis software.

OR.

You have a combination of graduate education (more than 2 academic years but less than 3) and work experience described for a GS-12 (less than 1 year).

#### **GS-12 Qualifications Non-research:**

You have been in a Mathematical Statistician, GS-1529-11, position for at least one year.

#### OR

You have had at least one year of professional work experience where your work was generally reviewed only for adherence to accepted professional standards. Your work included applying statistical methods to carry out statistical analyses, or developing technical reports or professional papers dealing with socioeconomic or demographic data or socioeconomic or demographic administrative records or record systems. Your assignments regularly required that you develop solutions to difficult statistical problems that did not have readily available precedents, establish statistical and analytical methodology, design sampling and estimation procedures for surveys, document work results and findings in survey specifications, and prepare oral and written technical reports to colleagues or at professional meetings.

**BASIS FOR RATING:** Ratings will be based on your questionnaire responses. See application materials for questionnaire. Errors or omissions may affect your score. Qualified candidates will be assigned a score between 70 and 100, not including points that may be assigned for veterans preference.

Individuals who have special priority selection rights under Agency Career Transition Assistance Program (CTAP) or Interagency Career Transition Assistance Program (ICTAP) must be well-qualified for the position to receive consideration for special priority selection. CTAP or ICTAP eligibles will be considered well-qualified if they are rated with a score of 90 or above.

ALL APPLICANTS ARE CONSIDERED WITHOUT REGARD TO RACE, RELIGION, COLOR, NATIONAL ORIGIN, SEX, POLITICAL AFFILIATION, AGE (WITH AUTHORIZED EXCEPTIONS) OR ANY OTHER NONMERIT FACTOR.

#### APPLICATION MATERIAL

#### A. Questionnaire

Access the questionnaire either <u>electronically on the USAJOB web site</u> or request the <u>hard copy form</u>.

Electronic application is strongly encouraged as the simplest and most expeditious method.

#### Electronic Option on the World Wide Web

- 1. Connect to the Census Bureau Mathematical Statistician questionnaire at: http://www.usajobs.opm.gov/cen1529.htm
- 2. Complete the questionnaire.
- 3. Submit the questionnaire.

**IMPORTANT!** If you do not receive a confirmation from OPM indicating that you submission was successful please resubmit. If problems persist contact OPM at: **usajobs\_webmaster@opm.gov** 

#### Hard Copy Option

- 1. Request OPM Form 1203-AW, Qualification and Availability Form C by telephone:
  - a. Call the USAJOBS by Phone at (202) 606-2700
  - b. After the introductory message, press 1 to reach the main menu then 3 to request forms and 1 to begin recording.
  - c. At the prompt, ask for Form C, and
  - d. At the next prompt, record your name and address
- 2. When you receive Form C, complete it using the questions contained at the end of the vacancy announcement.

#### B. Resume

You must submit a resume, or OF-612 (Optional Application for Federal Employment), or other written application format of your choice. Be sure you provide all of the information requested below:

- Announcement Number, title and grade(s) for which you are applying.
- Social Security Number
- Country of Citizenship
- If ever employed by the Federal Government, please show the highest Federal civilian grade held, job series, and dates of employment in grade.
- Education
- Work experience including dates of employment, duties, employer's name, address, and phone number
- Other relevant qualifications

#### C. Transcripts

- You must submit copies of college transcripts or a list of college courses taken that identify for each course the college or university, semester or quarter hours earned, grade and grade-point received.
- Please write on a separate sheet of paper or indicate on your transcripts or list of college courses those courses that meet the basic education requirement for this position. Do not use a highlighter to mark these courses.
- Official college transcripts are not required at this time. However, you will need to provide a copy of your final official transcripts prior to appointment.
- There is no limit on the number of college transcript pages you may submit.
- With the materials you submit, you will need to include specific information on classes you will be completing within the next 9 months if you need these classes in order to qualify for this position. List the title and course number of the class, the department and college or university offering the class, the number of semester or quarter hours credit given for the class, and the date you expect to complete the class.

#### D. Other application materials, as necessary

- If you are a current or former Federal employee, please submit a copy of your latest Notice of Personnel Action, SF-50.
- Federal employees seeking CTAP/ICTAP eligibility must submit proof that they meet the requirements of 5 CFR 330.605(a). This includes a copy of the agency notice and a copy of their most recent SF-50 noting current position, grade level, and duty location.
- Notate your application and include the required documentation if you are applying and eligible for a non-competitive appointment such as Thirty Percent or More Disabled Veteran Appointment, Veterans Readjustment Appointment (VRA), Severely Physically handicapped Schedule A Appointment, Former Peace Corps Appointment, etc.
- If you are applying for Veteran Preference, submit evidence of eligibility, such as a Certificate of Release or Discharge from Active Duty, DD-214, and Application for 10-Point Veteran Preference, Standard Form 15, and the proof requested on the form. The Defense Authorization Act of November 18, 1997, extended veterans' preference to persons who served on active duty during the Gulf War from August 2, 1990, through January 2, 1992. The law grants preference to persons otherwise eligible and who served on active duty during this period, regardless of where the person served or for how long. The law also authorizes the Secretary of each military department to award the Armed Forces Expeditionary Medal for service in Bosnia during the period November 20, 1995, to a date to be determined. The award of the Medal is qualifying for veterans' preference. More information on veterans' preference is available in the VetGuide that may be found on the United States Office of Personnel Management web site at www.opm.gov.

#### **SUBMIT APPLICATION MATERIALS:**

- 1. Your application materials will not be returned. Do not submit original documents that you may need in the future.
- 2. Mail or fax your resume, transcripts, and other documents as a complete package. If you choose to submit college transcripts, official or unofficial, do not have your university or college submit them under separate cover. Transcripts must be submitted with your resume and other documents as a complete package.
- 3. If you completed the questionnaire <u>electronically</u>, submit the remaining application material (your resume, transcripts, and other material) by FAX, U.S. Postal Mail, or hand delivery.
  - A. To FAX your remaining application material

- 1. Complete the Census Application Cover Page
  - a. The Cover Page appears after you complete the questionnaire electronically.
  - b. The Cover Page is also available at http://www.usajobs.opm.gov/pdf/census.pdf
  - c. In the Vacancy Identification Number blocks, enter **WA21529**
- 2. Using this Cover Page, FAX your remaining application material to 1-800-601-8952.
- B. To mail, hand deliver, or deliver by courier your remaining application material see addresses in #4 and #5 below.

Your application/FAX should not be excessive, but it should provide enough information to support your responses to the application questionnaire. There is no limit on the number of college transcript pages you may submit; however, you may not submit more than 10 pages for any additional documentation. This additional documentation may include your resume or application, military discharge documents, veterans preference application, etc. *If you submit more than 10 pages of additional documentation, only the first 10 pages received will be retained and made part of your application package.* 

.4. If you completed the questionnaire by <u>hard copy Form C</u>, submit all application material (Form C, your resume, transcripts, and other material) by U.S. Postal Mail to:

U.S. Office of Personnel Management Washington Service Center ATTN: Vacancy Announcement WA-2-1529 Post Office Box 14080 Washington, DC 20044

5. Applications may also be hand delivered between 7:00 a.m. and 6:30 p.m., Monday through Friday and placed into the Employment Application Drop Box at:

U.S. Office of Personnel Management 1900 E Street, NW Room 1416 Washington, DC 20415

Please include the position title and grade for which you are applying on the envelope.

#### **CONTACT INFORMATION:**

- 1. If you have questions about the status of your application or Notice of Results for this position, or if you experience problems submitting your resume and college transcripts by fax, you may call **1-888-866-5164**.
- 2. If you experience problems with the electronic application for this position, you may contact us at: usajobs\_webmaster@opm.gov

# MATHEMATICAL STATISTICIAN, GS-1529-5/7/9/11/12 QUESTIONNAIRE FOR USE WITH THE HARD COPY APPLICATION (FORM C)

On the Form C you will be asked to provide information regarding your education and experience as it relates to the work of a Mathematical Statistician. In the appropriate Section on Form C, use a #2 pencil to mark your responses to the following questions. Return the form and any additional application material requested in the vacancy announcement to our office according to the instructions provided in the vacancy announcement.

**WARNING:** Your answers will be verified against the narrative information you provide in your resume or application, information your references provide, background checks, job interviews, or any other information obtained during the application process. Any exaggeration of your experience or any attempt to conceal information can be cause for not selecting you, for firing you after you begin employment, and for barring you from applying for Federal employment. Therefore, carefully enter the information that accurately reflects your actual employment and/or educational background.

#### Enter the following to complete the Qualifications and Availability Form C:

Section 1: Your name

Section 2: Mathematical Statistician, GS-1529-5/7/9/11/12

Section 3: WA-2-1529

Section 4: OCCUPATION - Enter "1529 C" and darken the appropriate oval below each box. Section 5: CASE NUMBER - Enter "21529" and darken the appropriate oval below each box.

Section 6: LOWEST GRADE - Enter the lowest grade level at which you will accept an employment offer. Enter "05",

"07", "09", "11" or "12" and darken the appropriate oval below each box. GS-5 is the lowest grade covered.

Section 7: **EMPLOYMENT AVAILABILITY** - Self-explanatory (darken the appropriate oval below each box). Provide your answers to the following questions in part E):

**Question 1:** Are you currently a Department of Commerce employee who has been declared surplus <u>AND</u> is requesting special priority selection consideration under the Department of Commerce Career Transition Assistance Program (CTAP)?

Y = Yes N = No

**Question 2:** Are you a displaced Federal employee who is requesting special priority selection consideration under the Interagency Career Transition Assistance Program (ICTAP)?

Y = Yes N = No

<u>NOTE</u>: If your answer is yes to either question 1 or 2 you must meet the CTAP or ICTAP eligibility requirements <u>AND</u> submit supporting proof documentation -- Certificate of Expected Separation, Reduction in Force notice, etc. Refer to the Special Selection Priority Consideration Provisions for Surplus or Displaced Federal Employees in the vacancy announcement for additional information.

Section 8: **OCCUPATIONAL SPECIALTIES** - In blocks 1 & 2 of this section, enter the three digit code corresponding to the specialty for which you wish employment consideration (darken the appropriate oval below each box). You may select either or both specialties. Leave blocks 3 through 10 blank.

001 = General002 = Research

Section 9: **GEOGRAPHIC AVAILABILITY (JOB LOCATIONS)** - In block 1 of this section, enter "**001**" in the space provided (darken the appropriate oval below each box). Leave blocks 2 through 9 blank.

Section 10: FIRST NAME, MIDDLE INITIAL, AND LAST NAME - Self-explanatory (darken the appropriate oval below each

box).

Section 11: SOCIAL SECURITY NUMBER - We need your Social Security Number to maintain your records. Executive Order 9397 authorizes the Office of Personnel Management to use this number in keeping records. We may also use this number to make requests for information about you from employers, schools, banks, and others. Giving us your Social Security Number is voluntary, however, we cannot process your application without it. (Darken the

appropriate oval below each box.)

Sections 12-16: **TELEPHONE NUMBER AND ADDRESS** - Self-explanatory (darken the appropriate oval below each box).

### Section 17: **OCCUPATIONAL QUESTIONS** - **Mark only 1** response in Section 17 for each of the questions. Darken the appropriate oval.

Please ensure that you can provide specific examples or documentation of your education or experience as proof that you have had this type of experience. You may be asked to provide such evidence or documentation at a later stage in the selection process.

The following questions ask you to describe your educational background, your work, and other experiences in order to determine your qualifications for the grade levels to be filled.

You must respond to all these questions regardless of the grade level you are seeking.

#### Minimum Qualifications for a Mathematical Statistician (GS-5):

1. I have 24 semester hours of mathematics and statistics of which at least 12 were in mathematics and 6 were statistics. With the materials you submit, you will need to include specific information on classes you will be completing within the next 9 months if you need these classes in order to qualify for this position. List the title and course number of the class, the department and college or university offering the class, the number of semester or quarter hours credit given for the class, and the date you expect to complete the class.

A = Yes

B = Yes, within 9 months I will have this

C = No

2. My course work included at least 4 of the following:

-differential calculus -theory of equations

-advanced calculus
-linear algebra
-math logic
-vector analysis
-integral calculus
-advanced algebra
-differential equations,
-probability theory

-mathematical statistics -any other math course for which one of the above is a prerequisite

Courses in *mathematical statistics* or *probability theory* will be accepted toward meeting the mathematics requirements only if they have a prerequisite of elementary calculus or more advanced mathematics courses. However, the same mathematical statistics or probability theory course cannot be counted toward both the mathematics and the statistics requirement.

With the materials you submit, you will need to include specific information on classes you will be completing within the next 9 months if you need these classes in order to qualify for this position. List the title and course number of the class, the department and college or university offering the class, the number of semester or quarter hours credit given for the class, and the date you expect to complete the class.

A = Yes

B = Yes, within 9 months I will have this

C = No

3. I have a bachelor's degree or higher college degree,

#### OR.

I do not have a degree but have a combination of college education and experience totaling four years. I have experience and/or education performing duties such as sampling, collecting, computing, and analyzing statistical data; applying known statistical techniques such as measurement of central tendency, dispersion, skewness, sampling error, and simple and multiple correlation; conducting analysis of variance; and conducting tests of significance.

A = Yes

B = Yes, within 9 months I will have my college degree

C = Nc

You must answer "yes" to 1, 2 and 3 above to meet the minimum qualifications for a Mathematical Statistician, Series 1529. If you did not answer "yes" to all three, there is no reason to continue this application.

#### **GS-7 Qualifications:**

- 4. I have superior academic achievement which is defined as one (or more) of the following:
  - membership in a national honor society,
  - graduating in the upper 1/3 of the class,
  - earning an undergraduate grade point average of at least 2.95 (on a 4.0 scale) in the final 2 undergraduate years completed,
  - earning a cumulative undergraduate GPA of at least 2.95,
  - earning an undergraduate GPA of at least 3.45 in the major during the final 2 undergraduate years completed,
  - earning a cumulative undergraduate GPA of 3.45 in the major.

A = Yes

B = Yes, within 9 months I will have this

C = No

5. I have completed one year of graduate education.

A = Yes

B = Yes, within 9 months I will have this

C = No

6. I have been in a Mathematical Statistician, GS-1529-5, position for at least one year.

A = Yes

B = No

7. I have had at least one year of professional work experience where my assignments and the steps to follow usually were defined by my supervisor or by standard operating procedures, and my work was checked closely for accuracy and adequacy. Generally, any deviation from standard procedures required prior approval of my supervisor. My assignments included performing one or more statistical or analytical tasks: 1) applying or using standard statistical methods and analyses found in college textbooks; 2) using statistical analysis software to help a senior colleague or supervisor analyze data; 3) helping plan surveys; or 4) assisting in developing a portion of a report on statistical analysis.

#### OR.

I have a combination of graduate education (less than 1 year) and work experience described for a GS-7 (less than 1 year) that totals one year.

A = Yes

B = No

Yes to 4, 5, 6 or 7 qualifies you at the GS-7 level.

#### **GS-9 Qualifications**

8. I have a master's degree, or I have completed two years of progressively higher level graduate education leading to a master's degree, in Mathematics, Statistics, Biostatistics, Economics, Sociology, Demography, or Computer Science.

A = Yes

B = Yes, within 9 months I will have this

C = No

9. I have been in a Mathematical Statistician, GS-1529-7, position for at least one year.

A = Yes

B = No

10. I have had at least one year of professional work experience where my assignments were most often defined by my supervisor or by standard operating procedures, but I used some judgement in selecting the statistical methods and, when necessary, made minor changes to adapt the methods to my specific work situations. My analytical methods and results, written documents, and

reports were closely reviewed for technical and analytical adequacy. My assignments included one or both of the following: 1) doing statistical analyses on, or applying statistical analytical methodology to, socioeconomic or demographic data or socioeconomic or demographic administrative records or record systems; or 2) assisting in the development of statistical technical reports or professional papers on such data.

#### OR.

I have a combination of graduate education (more than 1 academic year but less than 2) in the courses listed in "8" above and work experience described above for a GS-9 (less than 1 year) that totals one year. Only graduate education beyond the first year (18 semester hours or quarter hour equivalent) can be combined with experience to total one year.

A = YesB = No

Yes to 8, 9, or 10 qualifies you at the GS-9 level.

#### **GS-11 Qualifications**

11. I have a Ph.D., or I have completed three years of progressively higher-level graduate study leading to a Ph.D., in Mathematics, Statistics, Biostatistics, Economics, Sociology, Demography, or Computer Science.

A = Yes

B = Yes, within 9 months I will have this

C = No

12. I have been in a Mathematical Statistician ,GS-1529-9, position for at least one year.

A = YesB = No

13. I have had at least one year of professional work experience where my assignments required that I select and adapt standard statistical techniques from text books, handbooks, or other professional literature for a variety of problems when related precedents were available. My analytical approaches and results were very generally reviewed for technical and professional adequacy. My assignments involved applying statistical methods to carry out statistical analyses, or assisting in the development of technical reports or professional papers dealing with socioeconomic or demographic data or socioeconomic or demographic administrative records or record systems. My assignments included strong emphasis on statistical methodological areas such as developing sample design and allocation studies, and establishing survey specifications and methodology, as well as documenting my analyses and conclusions in written and oral reports.

#### OR.

I have a combination of graduate education (more than 2 academic years but less than 3) in the courses listed in "11" above and work experience described for a GS-11 (less than 1 year) that totals one year. Only graduate education beyond the second year (36 semester hours or quarter hour equivalent) can be combined with experience to total one year.

A = YesB = No

Yes to 11, 12 or 13 qualifies you at the GS-11 level. If yes to 11, you are also qualified for a GS-12 RESEARCH POSITION.

#### **GS-12 Qualifications**

14. I have been in a Mathematical Statistician, GS-1529-11, position for at least one year.

A = YesB = No

15. I have had at least one year of professional work experience where my work was generally reviewed only for adherence to accepted professional standards. My work included applying statistical methods to carry out statistical analyses, or developing technical reports or professional papers dealing with socioeconomic or demographic data or socioeconomic or demographic administrative records or record systems. My assignments regularly required that I develop solutions to difficult statistical problems that did not have readily available precedents, establish statistical and analytical methodology, design sampling and

estimation procedures for surveys, document work results and findings in survey specifications, and prepare oral and written technical reports to colleagues or at professional meetings.

A = YesB = No

#### Yes to 14 or 15, qualifies you at the GS-12 level.

In this part you will respond to questions about experiences you have had and tasks you have performed that are related to the duties of a Mathematical Statistician. *It is not expected that you will have education or experience in all of these areas.* 

Answer all questions to the best of your ability. You may be asked to provide evidence or documentation that you have had this type of experience at a later stage in the selection process. Your responses are subject to verification through background checks, job interviews, or any other information obtained during the application process. Any exaggeration of your experience or any attempt to conceal information can result in your not being selected, being removed from a Federal job and in barring you from seeking Federal employment in the future.

- 16. From the descriptions below select only one that most closely and accurately describes your education in statistics.
  - A = I have earned a bachelor's degree with a major in statistics.
  - B = I have earned a master's degree in statistics.
  - C = I have earned a doctoral degree in statistics.
  - D = None of the above statements apply to me.
- 17. From the descriptions below select only one that most closely and accurately describes your education in mathematics.
  - A = I have earned a bachelor's degree with a major in mathematics.
  - B = I have earned a master's degree in mathematics.
  - C = I have earned a doctoral degree in mathematics.
  - D = None of the above statements apply to me.

For each of the following knowledge areas, choose the statement from the list below that best describes your experience and/or training in that task. Select only one statement for each knowledge area. *The knowledge areas are alphabetized*.

A = I have had no education or experience in this.

B = I have undergraduate-level course work in this that comprised at least one month of the course.

C = I have graduate-level course work that included this as part of a broader course, or I have professional-level experience in this, working under close supervision.

D = I have taken a graduate-level course entirely devoted to this.

E = I have significant professional-level experience in this, working independently, and normally without the review of a supervisor or senior employee.

F = I have recognized professional expertise in this area, am often consulted by others for assistance, and am responsible for training other employees in this area.

#### Statistical concepts and methods

- 18. Analysis of variance
- 19. Probability
- 20. Categorical data analysis
- 21. Estimation
- 22. Experimental design
- 23. Exploratory data analysis
- 24. Generalized linear models
- 25. Hypothesis testing
- 26. Non-parametric statistics

- 27. Quality Control/Assurance
- 28. Regression analysis
- 29. Sampling theory
- 30. Statistical inference
- 31. Time series analysis
- 32. Variance estimation
- 33. Bayesian statistics

#### Survey topics

- 34. Data analysis
- 35. Coverage and measurement error
- 36. Methods research (pretest methods, context/mode effects)
- 37. Missing data methodology
- 38. Nonsampling error evaluation
- 39. Questionnaire design
- 40. Survey design

For each of the following knowledge areas or tasks, choose the statement from the list below that best describes your experience and/or training in that task. Select only one statement for each task.

A = I have had no experience doing or using this.

B = I have beginner level experience doing or using this.

C = I have intermediate level experience doing or using this.

D = I have advanced level experience doing or using this.

#### Computer skills

- 41. Develop software applications in a UNIX environment.
- 42. Develop software applications in a VMS (VAX/Alpha) environment.
- 43. Conduct statistical analysis in SAS, SPSS, S-PLUS or SUDAAN.
- 44. Create and modify spreadsheets (1-2-3, Quattro Pro or Excel).
- 45. Develop applications using ARCINFO, ARCVIEW, MAPINGO, ATLAS, or SAS-GIS.
- 46. Develop software applications using C.
- 47. Develop software applications using C++.
- 48. Develop software applications using THE SAS Macro Facility.
- 49. Develop software applications using FORTRAN.
- 50. Develop applications using other programming languages (e.g., Basic, Pascal, Cobol, etc.)
- 51. Develop web-based applications using Perl, CGI, or JAVA.
- 52. Develop applications using Oracle, Sybase DBase, Access, Paradox, Foxpro, Approach, Ingres, Informix, etc.
- 53. Develop applications using rapid application development tools (e.g., Delphi, Oracle Developer 2000, Power Objects, Power Builder, Visual Basic, Visual C++, etc.).
- 54. Develop applications using Oracle PL/SQL.

For each of the following knowledge areas or tasks, choose the statement from the list below that best describes your experience and/or training in that task. Select only one statement for each task.

A = I have not done this.

B = I have done this.

#### **Oral Communication**

- 55. Give oral presentations on statistical or mathematical findings.
- 56. Speak to managers, co-workers, or classmates in a formal setting to explain, report, or train them for a statistical or mathematical task.
- 57. Influence, persuade or negotiate with sponsors, data users, or other professionals to resolve technical issues or points of disagreement.
- 58. Present statistical findings while representing an organization at a conference.

#### Written Communication

- 59. Write instructions to conduct statistical tasks or operations.
- 60. Author statistical or mathematical technical reports.
- 61. Prepare statistical or mathematical professional papers.
- 62. Publish articles in scientific/peer-reviewed journals.

#### **Organization Skills**

- 63. Coordinate with people in the statistical or mathematical fields to accomplish project goals.
- 64. Participate in a group to complete a statistical or mathematical project.
- 65. Manage projects involving specific ordering and time sequencing.
- 66. Lead a group to complete a statistical or mathematical project.
- 67. Lead the design of statistical surveys or statistical data collection systems with others to accomplish project goals.
- Section 18: **JOB PREFERENCE** Leave Blank. Section 19: **LANGUAGES** -Leave Blank.
- Section 20: **DATE BLOCK** -Leave Blank.
- Section 21: **OTHER INFORMATION** Leave Blank. Section 22: **SPECIAL KNOWLEDGE** Leave Blank.
- VETERAN PREFERENCE CLAIM Enter your veteran preference claim. Not all veterans of the U.S. Armed Forces are entitled to veterans' preference. If you are not sure that you are entitled to veterans' preference, you may call USAJOBS by Phone at 1-202-606-2700. When the system answers press 1 to begin, then pause briefly and enter 231 to receive detailed information about veterans' preference. See the vacancy announcement for the forms you must submit for veterans' preference claim verification.
- Section 24: **BACKGROUND INFORMATION YOU MUST COMPLETE THIS SECTION.** You must answer question 1 about your citizenship. You may answer questions 2 through 4 if you desire.
- Section 25: **DATES OF ACTIVE DUTY MILITARY SERVICE** Self-explanatory.
- Section 26: **SIGNATURE/DATE** Please read the statement, then sign and date your application.